IN THE CLAIMS:

1.   (Previously presented) A method of documenting delivery and content of an electronic message, comprising:

        receiving an electronic message from a message sender, the electronic

5   message having at least one designated electronic delivery address associated therewith;

        transmitting the electronic message to said designated address;

        receiving electronic delivery status notification information regarding delivery of the electronic message to the designated address;

        computing a message authentication code corresponding to at least the

10   message; assembling a copy of at least a portion of the message, the electronic delivery status notification information, and the message authentication code, said assemblage defining an electronic receipt; and

        transmitting the receipt to a storage means.

15   2.   (Previously presented) The method of claim I wherein transmitting the receipt to a storage means comprises transmitting the receipt to the message sender.

3.   (Previously presented) The method of claim 2 further comprising the step of discarding the original message after transmitting the electronic receipt to the sender.

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4.   (Previously presented) The method of claim I further comprising at a later time:

receiving a purported receipt and a purported message authentication code

associated therewith;

determining that the purported message authentication code corresponds to

the message; and

5   providing sworn testimony verifying content and delivery of the message to

the addressee.

5.   (Previously presented) The method of claim I wherein said sworn

testimony is provided for a fee.

10   6.   (Previously presented) The method of claim I wherein the message

authentication code corresponds additionally to delivery status and delivery time

information.

7.   (Previously presented) The method of claim I wherein the step of

15   computing an authentication code comprises:

computing a first message digest corresponding to at least a body of the

message; computing a second message digest corresponding to an attachment to the

message;

computing an overall message digest corresponding to said first and said

20   second message digests; and

encrypting said overall message digest to create a digital fingerprint.

8. (Previously presented) The method of claim I wherein computing a message authentication code comprises:

using a secure hashing algorithm, computing a message digest corresponding to at least the message and the electronic delivery status notification information.

9. (Previously presented) The method of claim I wherein said transmitting step comprises:

establishing a direct telnet connection with an e-mail server associated with the destination address; and

transmitting the message directly to said e-mail server.

10. (Previously presented) The method of claim I further comprising the step of tagging the message to indicate that it has been registered with a third party prior to said step of transmitting the message to said designated address.

11. (Previously presented) The method of claim 1, wherein:

said step of receiving an electronic message comprises receiving the electronic message as an e-mail cc; and

the electronic delivery address is determined by examining a delivery address designated within a header associated with the message.

12.   (Previously presented) A method of providing proof regarding the delivery and content of an electronic message, comprising:

receiving from a sender across a computer network an electronic message, said message having a delivery address associated therewith;

5   sending said message electronically to a destination corresponding to said delivery address;

receiving delivery status notification information associated with said message and said delivery address;

providing to said sender:

10   a substantial copy of said message;

said delivery status notification information; and

a message digest computed substantially from said message copy and said delivery status notification information; and

at a future date receiving electronically said electronic receipt from said

15   sender, verifying that said message digest corresponds to said message, and verifying that said message was received by an electronic message handler associated with said delivery address.

13.   (Previously presented) An electronic message server programmed to

20   implement the method of claim 12.

14. (Previously presented) A computer readable memory capable of causing a computer to implement the method of claim 12.

15. (Previously presented) The method of claim 12 further comprising:

5   sending said message to a plurality of additional destinations corresponding to additional delivery addresses associated with the message;

        receiving additional delivery status notification information associated with said message and said additional delivery addresses; and

        sending a delivery verification message to the sender, the delivery

10   verification message including:

        a list of all of said addresses; and

        said delivery status notification information respectively corresponding to all of said addresses, said delivery status notification information including for each addressee a listing of whether or not delivery was successful and, if delivery was

15   successful, the date and time at which delivery occurred.

16. (Previously presented) The method of claim 12 wherein said computer network is the Internet and said electronic message is an e-mail message.

20   17. (Previously presented) The method of claim 12 wherein the step of sending said message electronically to a destination corresponding to said delivery address comprises:

establishing direct communication to a recipient electronic message server

corresponding to said destination; and

sending said electronic message directly to said recipient electronic

message server; and

5   verifying that said recipient electronic message server reported receiving

said electronic message without errors.

18.   (Previously presented) The method of claim 17 wherein said direct

communication comprises a telnet connection across the Internet.

10   19.   (Previously presented) The method of claim 12, wherein said message

digest is encrypted.

20.   (Previously presented) The method of claim 12, further comprising:

for a fee, providing sworn testimony verifying content of said message and

15   receipt thereof at said delivery address.

21.   (Previously presented) The method of claim 12, wherein said message

digest includes:

a first message digest computed according to a body of said message; and

20   a second message digest computed according to an attachment to said

message.

22.   (Previously presented) The method of claim 12, wherein said message digest comprises a first message digest computed according to a body of said message and at least one electronic attachment to said message.

5   23.   (Currently amended) A method of verifying delivery of an electronic message from a message originator to a plurality of destinations, comprising:

       receiving an e-mail message, said e-mail message including a plurality of destination e-mail addresses associated therewith and a message originator address associated therewith;

10   forwarding said message to said plurality of addresses; providing a report to said message originator, the report listing whether the message was successfully transmitted to a computer associated with each respective destination address, and if the message was successfully transmitted, the date and time at which the e-mail was successfully received by the computer associated with the respective destination

15 address.

24.   (Previously presented) The method of claim 23 wherein the message is received from the sender across the Internet; the report is sent to the sender across the Internet, and wherein the method further comprises:

20   charging a fee to said message originator.

25.   (Previously presented) A method of verifying delivery of an electronic message, comprising:

in a computer system, receiving an electronic message from a message sender for routing to a destination address;

5   establishing communication With an electronic message server associated with the destination address, said server defining a destination server;

querying said destination server to determine whether said destination server supports delivery status notification (DSN) functionality;

receiving a response to said query, said query and response together

10   defining an SMTP dialog;

requesting delivery status notification information from said destination server according to results of said SMTP dialog;

transmitting said electronic message to said destination address;

receiving DSN information from said destination server with respect to

15   delivery of said electronic message; and

providing to said message sender at least a portion of said SMTP dialog, and at least a portion of said DSN information.

26.   (Previously presented) The method of claim 25, wherein the providing step

20   includes composing an electronic receipt, said electronic receipt including:

a copy of said electronic message;

at least a portion of said SMTP dialog and at least a portion of said DSN

information; and

a message authentication code corresponding to content of said receipt.

5   27.   (Previously presented) A method of verifying content of a received

electronic message, comprising:

registering a designated server as the recipient for messages addressed to e-

mail

addresses at a plurality of top level domains;

10   receiving an electronic message addressed to a first e-mail address within

said plurality of top level domains;

generating a message authentication code corresponding to content of said

received message and delivery information associated with said message;

providing the message and the message authentication code to a recipient

15   associated with said first e-mail address;

at a later time, verifying that said message digest corresponds to said

message and delivery information.

28.   (Previously presented) The method of claim 27 wherein said message

20   authentication code comprises an encrypted message digests.

29.   (Previously presented) The method of claim 27 wherein said providing comprises POP mail service.

30.   (Previously presented) The method of claim 27 wherein said message authentication code and said message are combined into a single delivered message provided to said designated addressee.

31.   (Previously presented) A method of verifying delivery and reading of an electronic message, comprising:

receiving an electronic message across the Internet from a message sender, said message including an electronic destination address;

forwarding said message to a destination server associated with said destination address;

requesting delivery status notification from said destination server;

receiving confirmation from said destination server that said message was received;

sending to the message sender at least one receipt, said at least one receipt including:

delivery information, said delivery information including the time at which the message was received;

read notification information regarding when a user at said destination address opened said electronic message for reading; and

at least one message authentication code corresponding to the message, the

delivery information, and the read notification information.

32.   (Previously presented) The method of claim 31 wherein said at least one

5   receipt comprises:

a first receipt, said first receipt comprising said delivery information and a

first message authentication code associated therewith; and

a second receipt, said second receipt comprising said read notification

information and a second message authentication code associated therewith.

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33.   (Previously presented) A method of verifying that an electronic message

was sent, comprising:

generating an electronic message for a recipient from information received

from a message originator;

15   sending the electronic message to the recipient;

generating a message digest corresponding to content of the electronic

message; encrypting the message digest; and

sending the electronic message and the encrypted digest to the message

originator.

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34.   (Previously presented) The method according to claim 33, further

comprising:

tracking delivery status notification of the message;

appending the delivery status notification to the electronic message; and

storing the appended delivery status notification for later verification if

needed.

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35.   (Previously presented) The method according to claim 33, wherein the

electronic message is sent to the recipient through a computer network.

36.   (Previously presented) The method according to claim 35, wherein the

computer network is a wide area network.

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37.   (Previously presented) The method according to claim 35, wherein the

computer network is the Internet.

38.   (Previously presented) A method of later proving that an electronic

15   message was previously sent to a recipient, comprising:

receiving from an independent party an electronic message, and further

receiving an address corresponding to an intended recipient of the message;

creating a validation code corresponding to the message;

transmitting the validation code to a storage means for storage thereat; and

20   sending the message to the recipient.

39.   (Previously presented) The method of claim 38 wherein said storage means comprises said independent party.

40.   (Previously presented) The method according to claim 38 wherein said

5   storage means comprises an on-site memory device.

41.   (Previously presented) The method according to claim 38 wherein said validation code is a message digest.

10   42.   (Previously presented) The method according to claim 41 further comprising:

encrypting the message digest;

creating a receipt, the receipt including the encrypted message digest; and

forwarding the receipt to the independent party for later verification if needed.

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43.   (Previously presented) A method of establishing whether a message was electronically received by a recipient, comprising:

providing a message to be dispatched electronically along with a recipient's address from a sender;

20   dispatching the message electronically to the recipient's address;

upon receiving a delivery status of the message, generating a receipt, the receipt including:

a copy of the message;

a digital signature associated with the message; and the delivery status for

the message; and

providing the receipt to the sender, for later establishing that the message

5   was electronically received by the recipient.

44.   (Previously presented) The method of claim 43 wherein the digital

signature is an encrypted message digest.

10   45.   (Previously presented) The method of claim 43, wherein the message is an

e-mail message.

46.   (Previously presented) The method of claim 43, wherein the digital

signature is a message digest corresponding to the message.

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47.   (Previously presented) The method of claim 43, wherein the message is

dispatched via the Internet.

48.   (Previously presented) The method of claim 43, wherein the message is

20   provided by logging onto a registrant's server to create an e-mail message for the

recipient.

49.   (Previously presented) The method of claim 43, wherein the status of the message is a Delivery Status Notification.

50.   (Previously presented) The method of claim 43, wherein tracking for the
5   delivery status of the message dispatched is done for a period of up to about 24 hours.

51.   (Previously presented) The method of claim 43, wherein tracking for the delivery status of the message occurs for more than about 24 hours, and the receipt records that delivery of the message is a delivery failure.

10 52.   (Previously presented) The method of claim 43, wherein the receipt further includes the time that the message was received at the recipient's address.

53.   (Previously presented) The method of claim 43, wherein the message includes an attached file, and
15 wherein the method rather comprises:

creating a message digest associated with the attached file; and encrypting the message digest; and

wherein said dispatching step includes dispatching the message including the attached file.

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54.   (Previously presented) The method of claim 43, further including:

sending the receipt to the sender of the message.

55.   (Previously presented) The method of claim 43, further comprising:

requesting a reading receipt from the recipient; and

if the request for a reading receipt is responded to by the recipient,

generating a second digital signature corresponding to the contents of the reading receipt

5   and sending the second digital signature to the sender.

56.   (Previously presented) A method of proving that an electronic message

sent to a recipient was read, comprising:

receiving an electronic message along with a recipient's address;

10   calculating a message digest corresponding to the electronic message;

dispatching the electronic message electronically to the recipient's address;

requesting a reading notification;

upon receiving the reading notification, generating at least one reading

receipt, the at least one reading receipt including:

15   a copy of the message;

a first message digest for the corresponding electronic message; and

a second message digest for the reading notification from the recipient;

and

providing the reading receipt for later verification that said message was

20   received by the recipient.

57.   (Previously presented) The method of claim 56 wherein the electronic

message is provided by logging onto a registrant's server to create an e-mail message for

the recipient by a sender.

5   58.   (Previously presented) The method of claim 57, further including:

                sending the reading receipt to the sender of the electronic message.

         59.   (Previously presented) The method of claim 56, further including:

                appending to the reading receipt any files accompanying the reading

10   receipt; and generating respective message digests for any of the accompanying files.

         60.   (Previously presented) A method of validating the integrity of a purported

copy of an electronic message, comprising:

                receiving said purported electronic message copy, said purported copy

15   including a digital signature and a transmission history associated therewith;

                decrypting the digital signature;

                generating a message digest based on content of the purported copy; and

                validating the purported copy by comparing the decrypted digital signature

and the message digest to determine whether the two match.

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         61.   (Previously presented) The method according to claim 60, further

comprising:

if requested, providing sworn testimony verifying the content of the electronic message.

62.   (Previously presented) A method of registering an inbound electronic

5   message, comprising:

generating a message digest corresponding to an inbound electronic

message being sent to a recipient's address;

encrypting the message digest to create a digital signature;

appending the message digest to the contents of the inbound electronic

10   message to create a receipt;

transmitting the electronic message to the recipient address; and sending the

receipt to an archival storage means.

63.   (Previously presented) The method according to claim 62 wherein the

15   electronic message is an e-mail.

64.   (Previously presented) A method of registering an e-mail, comprising:

generating a message digest for content corresponding to the e-mail;

encrypting the message digest;

20   appending the encrypted message digest to the content of the e-mail to

create a receipt-sending the e-mail; and

transmitting the receipt to a storage means for storage thereat.

65.   (Previously presented) A method of documenting delivery of an e-mail message comprising:

receiving an e-mail message from a sender;

forwarding the message to at least one designated recipient;

recording delivery information associated with the forwarding of the message to each designated recipient;

computing a message digest corresponding to the said message and delivery information;

transmitting the message digest to the sender;

discarding the message; and

at a later time, examining said message, said delivery information, and said message digest, and providing third party verification services attesting that said message was sent to the designated recipient at the time indicated within the delivery information.

66.   (Previously presented) The method of claim 65, further comprising:

performing the steps recited in claim VK I for each of a plurality of unrelated entities, thereby providing independent third party e-mail authentication and verification services for said entities.

67.   (Previously presented) The method of claim 65 further comprising:

programming a message transport agent associated with said sender to redirect outgoing e-mail message originally addressed to said designated recipient, to a

designated third party, and to alter said message to include said designated recipient's e-mail address; and

wherein said third party performs said forwarding, recording, computing, and transmitting steps.

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68.   (Previously presented) The method of claim 67 further comprising:

providing a flag which a message sender can set in order to designate a particular outgoing message as a message to be registered.

10   69.   (Previously presented) The method of claim 65 further comprising:

advising the designated recipient that the message has been registered with a third party verification service.

70.   (Previously presented) The method of claim 65, further comprising:

15   charging the message sender a fee, said fee selected from the group comprising of a monthly fee, another periodic fee, a fee based on amount of data registered, and a per-message fee.

71.   (Previously presented) The method of claim 65, wherein said attesting is

20   performed for a fee.

72.   (Previously presented) An electronic receipt for delivery of an electronic

message, said receipt comprising:

        a body of an electronic message;

        delivery information pertaining to a date and time that the electronic

5   message body was delivered to a computer associated with a designated addressee; and

        a message authentication code computed from said message body and said

delivery information, said message authentication code being computed by an

independent entity.

10   73.   (Previously presented) A method of providing electronic message

registration services to the public, comprising:

        providing a worldwide web site at which a user can input a message and

designate a recipient by entering the recipient's electronic address;

        receiving the message and the recipient's address via said website;

15   forwarding the message to the recipient's electronic address; and providing

secure documentation to the user pertaining to:

        the message content; and

        the date and time at which the message was forwarded to the recipient's

electronic address.

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74.   (Previously presented) The method of claim 73 further comprising:

receiving delivery confirmation from a computer associated with said

recipient's electronic address, and including said delivery confirmation as part of said

secure documentation.

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75.   (Previously presented) The method of claim 74 further comprising:

receiving reading receipt information regarding when the designated

recipient opened the electronic message for reading, and including said reading receipt

information as part of said secure documentation.

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76.   (Previously presented) A method of providing e-mail message

documentation services,

comprising: receiving an e-mail message from a message sender;

creating a copy of the message and appending to the message copy a tag

15   advising that the message has been registered with a third party e-mail registration

service;

forwarding the tagged copy to a designated addressee; and

providing secure documentation to the message sender regarding content of

the message and delivery status information associated therewith.

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77.   (Previously presented) A method of documenting delivery and content of

an electronic message comprising:

recording electronic message protocol exchanges that effect delivery of the

message to a destination mail transport authority (MTA);

assembling a copy of at least a first portion of the message, the protocol exchange,

an authentication code corresponding to at least a second portion of the message, said

5   assemblage defining an electronic receipt; and

transmitting the receipt to a storage means.

78.   (Previously presented) The method of claim 77 wherein said protocol

exchanges comprise simple mail transport protocol (SMTP) exchanges.

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79.   (Previously presented) The method of claim 77 further comprising:

assigning a fictitious return address to the message in such a way that a

receiving MTA will return delivery status notification (DSN) with sufficient information

so as to enable determination of which message and which destination the DSN concerns

15   merely by analysis of the DSN's return address and without otherwise relying on content

of said message.

80.   (Previously presented) The method of claim 77 further comprising:

scanning subject lines and bodies of a return MTA notification to

20   determine, by the presence of indicative phrases, whether the MTA notification reports a

successful delivery, a failed delivery, or the relay of the message to anon extended simple

mail transport protocol (ESMTP) complaint mailer.

81.   (Previously presented) The method of claim 77 further comprising:

assembling and delivering a delivery report which, for each successful

delivery of the message indicates whether the system is only able to verify on the basis of

said recorded protocol exchanges, delivery of said message to a destination's mail server

5   or, alternatively, whether the system is able to verify on the basis of an MTA notification,

delivery of the message to an electronic mailbox corresponding to the destination.

82.   (Previously presented) A method of tracking delivering of a particular

electronic message comprising:

10   assigning a fictitious return address to the message, the fictitious return

address containing sufficient information to identify the original message; and

requesting message delivery status notification so as to cause a device which receives the

message to report delivery status information to the fictitious return address.

15   83.   (Previously presented) The method of claim 82 wherein:

said fictitious return address contains sufficient information to identify

content of the message.

84.   (Previously amended) A method of transmitting a message through the

20   internet from a sender to a recipient through a server displaced from the recipient,

including the steps at the server of:

receiving the message at the server from the sender,

transmitting, through the internet from the server to an agent of the
recipient, the message, an identification and an internet address of the server and the
identity of the sender of the message,

receiving from the agent at the server through the internet the identity and

5   address of the agent and an indication of the receipt by the agent of the message and the
identification and internet address of the server and the identity of the sender, and

sending to the sender from the server through the internet a copy of the
message and the information received by the server from the agent and a digital signature
of the message received by the server from the agent of the recipient.

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85.   (Previously presented) A method of transmitting a message through the
internet from a sender to a recipient through a server displaced from the recipient,
including the steps at the server of:

receiving the message at the server from the sender,

15   transmitting, through the internet from the server to an agent of the
recipient, the message, an identification and an internet address of the server and the
identity of the sender of the message,

receiving from the agent at the server through the internet the identity of the
agent and an indication of the receipt by the agent of the message and the identification

20   and internet address of the server and the identify of the sender and the digital fingerprint
of the message, and

sending to the sender from the server through the internet a copy of the

message and the information received by the server from the agent.

86.   (Previously amended) A method as set forth in claim 84 wherein

5   the server identifies any attachment to the message and wherein

the identity of the attachment is received by the server through the internet

from the agent and wherein

the server sends to the sender through the internet a copy of the attachment

received from the agent and a digital signature of the attachment.

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87.   (Previously amended) A method as set forth in claim 84 wherein

a digital signature of the message is provided at the server by a plurality of

digits in a unique sequence and is sent by the server to the sender.

15   88.   (Previously presented) A method as set forth in claim 84 wherein

a digital fingerprint of the message is provided at the server by a plurality

of digits in a unique sequence and is sent by the server to the sender.

89.   (Previously presented) A method as set forth in claim 84 wherein

20   the server creates a message digest of the message and encrypts the

message digest and sends the encrypted message digest to the sender through the internet

with the message, the identification and e-mail address of the server and the identity of the sender.

90. (Previously amended) A method of transmitting a message through the

5 internet from a sender to a recipient through a server displaced from the recipient, including the steps at the server of:

receiving the message at the server from the sender,

transmitting from the server through the internet to an agent of the recipient the message and the identity and internet address of the server and an indication

10 representing the identity of the sender,

receiving at the server from the agent a handshaking and delivery history of the message from the server to the agent, and

transmitting from the server to the sender through the internet the message, a digital signature, including a digital signature, of the message and the handshaking and

15 delivery history of the message received by the server from the agent.

91. (Previously amended) A method as set forth in claim 90 wherein

the server receives from the sender a copy of the information previously sent by the server to the sender, this information including the digital signature and the

20 message, when the sender wishes to have the message authenticated by the server and wherein

the server does not retain a copy of the any of the information transmitted

from the server to the sender, after the server transmits to the sender through the internet

the message, the digital signature of the message and the handshaking and delivery

history of the message.

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92.   (Previously amended) A method as set forth in claim 91 wherein

the server receives from the sender the information previously transmitted

by the server to the sender and wherein

the server uses the information received by the server from the sender to

10   create a digital signature and compares this digital signature with the digital signature

received by the server from the sender to authenticate the message received by the server

from the sender.

93.   (Previously presented) A method as set forth in claim 90 wherein

15   the server retains a copy, except for the message, of the information

received by the server from the agent and sent to the sender and wherein

when the sender wishes to authenticate that the message was sent by the

server to the agent, the server matches the information, except for the message, sent by

the server to the sender relating to the message with the information retained by the

20   server relating to the message.

94.   (Previously presented) A method as set forth in claim 90 wherein

the message includes an attachment and wherein

the server receives the attachment from the sender and wherein

the server transmits the attachment to the agent at the same time that the

5   sender transmits the message to the agent and wherein

the server receives from the agent the attachment at the same time that it

receives the message and the handshaking and delivery history of the message from the

agent and wherein

the server transmits the attachment and a digital signature, including a

10   digital fingerprint, of the attachment to the sender at the same time that it transmits the

digital signature of the message to the sender.

95.   (Previously presented) A method as set forth in claim 90 wherein

the message is transmitted from the sender to the agent in an individual one

15   of a variety of recognized header formats and wherein

the server receives from the agent the digital signature of the message and

the handshaking and delivery history of the message with the header formed in the

individual one of the variety of recognized header formats.

20   96.   (Previously presented) A method as set forth in claim 90 wherein

the server requests a delivery status notification from the agent relating to

the message when it transmits the message to the agent and wherein

the server receives the delivery status notification from the agent when it
receives the digital signature of the message from the agent.

97.   (Previously amended) A method as set forth in claim 93, including the
5   steps at the server of:

receiving from the sender at the server through the internet, at the same
time as the receipt of a copy of the message from the sender to the server, a copy of any
attachment to the message, and

providing for a transmittal from the agent to the server through the internet
10   of the attachment at the same time as the transmittal of the message from the agent to the
server.

98.   (Previously amended) In a method of transmitting a message through the
internet from a sender to a recipient through a server displaced from the recipient, the
15   steps at the server of:

receiving the message at the server from the recipient,

generating a hash constituting a synopsis of the message in coded form,

encrypting the hash with a particular encryption code to generate a digital
signature of the message, and

20   transmitting the message and the digital signature of the message through
the internet to the sender.

99.   (Previously amended) In a method as set forth in claim 98, the steps at the

server of:

generating, for any attachment to the message, a hash constituting a

synopsis of the attachment in coded form,

5   encrypting the hash with a particular encryption code to generate a digital

signature of the attachment, and

transmitting the attachment and the digital signature of the attachment to

the sender through the internet at the same time that the message and the digital signature

of the message are transmitted from the server to the sender through the internet.

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100.   (Previously amended) In a method as set forth in claim 98, the steps at the

server of:

removing the message and the digital signature of the message from the

server after the transmission of the message and the digital signature of the message from

15   the server to the sender.

101.   (Previously amended) In a method as set forth in claim 99, the steps at the

server of:

removing the message and the digital signature of the message from the

20   server after the transmission of the message and the digital signature of the message from

the server to the sender, and

removing the attachment, and the digital signature of the attachment, from

the server after the transmission of the attachment, and the digital signature of the

attachment, from the server to the sender.

5   102.   (Previously amended) In a method as set forth in claim 98, the step at the

server of:

          receiving at the server from the sender the message, and the digital

signature of the message, previously transmitted from the server to the sender.

10   103.   (Previously amended) In a method as set forth in claim 101, the step of:

          authenticating the message on the basis of the message, and the digital

signature of the message, transmitted from the sender to the server.

          104.   (Previously amended) In a method as set forth in claim 102, the step of:

15   authenticating at the server the message received by the server from the

sender on the basis of the message, and the digital signature of the message, transmitted

from the sender to the server, the authentication being provided by generating the digital

signature of the message received by the server from the sender and by comparing the

generated digital signature and the received digital signature.

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105.   (Previously amended) In a method as set forth in claim 103, the step of:

authenticating at the server the message received by the server from the

sender on the basis of the message, and the digital signature of the message, transmitted

from the sender to the server, the authentication being provided by generating the digital

5   signature of the message received by the server from the sender and by comparing the

generated digital signature and the received digital signature and by indicating the

authentication when the generated digital signature and the received digital signature are

the same.

10   106.   (Previously amended) In a method of transmitting a message through the

internet from a sender to an agent for the recipient through a server displaced from the

agent, the steps at the server of:

receiving the message at the server from the sender,

transmitting the message and the identity of the sender and the identity and

15   internet address of the server through the internet from the server to the agent,

receiving at the server through the internet any transmission through the

internet from the agent concerning the message from the sender, and

determining from the transmission received by the server from the agent, or

from the lack of any reception by the server through the internet from the agent, the

20   delivery status of the transmission by the server to the agent and the delivery status of any

delivery of the message by the agent to the recipient.

107.   (Previously amended) In a method as set forth in claim 106, the steps at the server of:

    periodically examining the delivery status of the message transmitted to the agent and the status of any delivery of the message by the agent to the recipient, and

5   transmitting the message and the digital signature of the message and the identity of the sender and the identity and internet address of the server through the internet to the sender with an indication of the delivery of the message to the agent when the server determines from the periodic examination that the message has been delivered to the transport agent.

10

108.   (Previously amended) A method of transmitting a message through the internet from a sender to an agent for a recipient through a server displaced from the agent, including the steps at the server of:

    receiving the message at the server,

15   transmitting through the internet to an agent of the recipient the message and the identity of the sender and the identity and the internet address of the server,

    receiving from the agent the message and the identity and internet address of the agent and the identity of the sender and the identity and internet address of the server,

20   providing a digital signature of what was received from the agent, and

    providing to the sender the information received by the server from the agent and the digital signature of the information received by the server.

109. (Previously amended) A method as set forth in claim 108, including the

steps at the server of:

      providing to the sender the message at the same time as the provision of the

digital signature of the message to the sender, and

5   discarding the message provided to the sender.

110. (Previously amended) A method as set forth in claim 108, including the

steps at the server of:

      receiving from the agent [providing] an indication of the date and time of

10 the reception by the agent of the identity and internet address of the agent and the identity

of the sender and the identity and the internet address of the server, and

      providing to the sender the indication of the date and time of the reception

by the agent of the identity and internet address of the agent and the identity of the sender

and the identity and internet address of the server.

15

111. (Previously amended) A method as set forth in claim 108, including the

steps at the server of:

      receiving from the sender a copy of the message provided by the server and

a copy of the digital signature of the message and the identity and internet address of the

20 agent and the identity of the sender and the identity and internet address of the server,

      generating a digital signature of what has been received from the sender,

comparing the digital signature received by the sender and the digital

signature generated by the server, and

authenticating the message received from the sender on the basis of the

comparison provided at the server.

5

112. (Previously amended) A method as set forth in claim 108, including the

steps at the server of:

forming at the server the digital signature of the message by providing a

hash of the message and then

10   encrypting the hash of the message.

113. (Previously amended) A method as set forth in claim 108, including the

steps at the server of:

providing a digital signature of an attachment to the message,

15   transmitting to the agent the attachment at the same time as the transmittal

of the message, and

transmitting to the sender the digital signature of the attachment at the same

time as the transmission of the digital signature of the message to the sender.

20   114. (Previously amended) A method as set forth in claim 112, including the

steps at the server of:

providing an indication of the date and time of the reception of the message

from the agent, and

providing to the sender the indication of the date and time of providing to

the server the digital signature of the message from the agent at the time of providing to

5   the sender the digital signature of the message,

providing to the sender the message at the same time as the provision of the

digital signature of the message to the sender, and

discarding the message provided to the sender,

providing a digital signature of an attachment to the message,

10   transmitting to the sender the attachment at the same time as the transmittal

of the message to the sender,

transmitting to the sender the digital signature of the attachment at the same

time as the transmission of the digital signature of the message to the sender,

receiving from the sender a copy of the message provided to the sender and

15   a copy of the digital signature of the message and the identity and internet address of the

agent and the identity of the sender and the identity and internet address of the server,

generating a digital signature of what has been received from the sender

relating to the message,

comparing the digital signature received from the sender and the digital

20   signature generated on the basis of what has been received from the sender relating to the

message, and

authenticating the message received from the sender on the basis of the comparison provided by the server.

115. (Currently amended) In a method of transmitting [[a]] an unencrypted message [[,]] from a sender to a destination address through a server displaced from the destination address the steps at the server of:

receiving the unencrypted message from the sender,

transmitting the unencrypted message, without any encryption, to the destination address,

receiving at the server an indication from the destination address that the message has been received at the destination address from the server,

without encrypting the unencrypted address, providing at the server a digital signature of the unencrypted message, and

transmitting to the sender the unencrypted message [[,]] and the digital signature of the unencrypted message for storage by the sender.

116. (Currently amended) In a method as set forth in claim 115, the step at the server of:

discarding the unencrypted message and the digital signature of the unencrypted message after the transmission of the unencrypted message and the digital signature of the unencrypted message to the sender and before any authentication of the unencrypted message.

117. (Currently amended) In a method as set forth in claim 116, the steps at the

server of:

receiving from the sender a copy of the unencrypted message and the digital

signature of the unencrypted message before any authentication of the unencrypted

5   message,

generating digital fingerprints of the unencrypted message and the digital signature

received from the sender,

comparing the digital fingerprints, and

authenticating the unencrypted message on the basis of the results of the

10   comparison.

118. (Currently amended) In a method as set forth in claim 116, the steps at the

server of:

without encrypting the unencrypted message, providing at the server[[,]] at the

15   same time as the provision of the digital signature of the message at the server, an

attachment including the identity of the sender and the identity and internet address of the

server and the identity and internet the destination address of the agent a recipient, all as

received by the server from the agent destination address,

generating a digital signature of the attachment without encrypting the

20   unencrypted message, and

without encrypting the unencrypted message, transmitting to the sender the

attachment including the identity of the sender, the identity and internet address of the

server and the identity and ~~internet~~ destination address of the [[agent]] <u>recipient</u> and the digital signature of the attachment, all as received by the server from the ~~agent~~ <u>destination address</u>, at the same time as the transmission of the message, and the digital signature of the message, to the sender.

5

119. (Currently amended) In a method as set forth in claim 115, the steps at the server of:

receiving an attachment from the destination address <u>without encrypting the unencrypted message,</u>

10   <u>without encrypting the unencrypted message,</u> providing at the server a digital signature of the attachment,

<u>without encrypting the unencrypted message,</u> transmitting to the sender~~, at the~~ ~~same time as the transmission of the message and the digital signature of the message,~~ the attachment and the digital signature of the attachment <u>without encrypting the unencrypted</u>

15 <u>message</u>.

120. (Currently amended) In a method as set forth in claim 115, the steps at the server of:

<u>without encrypting the unencrypted message,</u> receiving from the sender copies of

20 the <u>unencrypted</u> message and the attachment and the digital signatures of the <u>unencrypted</u> message and the attachment,

without encrypting the unencrypted message, generating digital fingerprints of the

unencrypted message and the digital signature of the unencrypted message and digital

fingerprints of the attachment and [[of]] the digital signature of the attachment, and

comparing the digital fingerprints of the unencrypted message and the digital

5   signature of the unencrypted message, and comparing the digital fingerprints of the

attachment and the digital signature of the attachment, to authenticate the unencrypted

message and the attachment.

121. (Currently amended) In a method as set forth in claim 119, the steps at the

10   server of:

without encrypting the unencrypted message, receiving the unencrypted message

and the digital signature of the unencrypted message at the server from the sender, and

authenticating the unencrypted message at the server on the basis of the

unencrypted message and the digital signature received by the server from the sender.

15

122. (Previously amended) A method of transmitting a message through the

internet from a sender to an agent for a recipient through a server displaced from the

agent, including the steps of

providing the message from the sender at the server,

20   providing at the server a digital fingerprint of the message and the identity

of the sender and the identity and internet address of the server,

transmitting to the agent the message and the identity of the sender and the

identity and the internet address of the server,

providing at the agent an indication of the status of the reception at the

agent of the transmittal from the server to the agent of the message and the identity of the

5   sender and the identity and interest address of the server, and

transmitting to the server from the agent the identity and internet address of

the agent and the status of the reception at the agent of the message and the identity of the

sender and the identity and internet address of the server.

10   123. A method as set forth in claim 122, including the steps of:

providing at the server a digital fingerprint of an attachment to the message,

transmitting the attachment to the agent at the same time as the transmittal

of the message to the agent,

providing at the agent the status of the reception of the attachment at the

15   same time as the provision at the agent of the status of the reception of the message, and

transmitting to the server from the agent the status of the reception of the

attachment at the same time as the transmittal to the server from the agent of the status of

the reception of the message.

20   124. A method as set forth in claim 122 wherein

the digital fingerprint of the message includes a digital digest of the

message and an encryption of the digital digest.

125. A method as set forth in claim 122 wherein

the agent includes in the transmission to the server the date and time of the

transmission by the agent to the server.

5

126. A method as set forth in claim 122 wherein

the server transmits to the sender the message and the digital fingerprint of

the message and the identity of the sender and the identity and internet address of the

server and the identity and internet address of the agent and the status at the agent of the

10   reception at the agent of the message.

127. A method as set forth in claim 122 wherein

the delivery status of the message at the agent includes at least one of the

following: (a) DELIVERED, (b) RELAYED, (c) DELIVERED-AND-WAITING FOR

15   DELIVERY STATUS NOTIFICATION (DSN), (d) DELIVERED-TO-MAILBOX, and

(e) FAILED, UNDELIVERABLE.

128. (Previously amended) A method as set forth in claim 122 wherein

the digital fingerprint of the message includes a digital digest of the

20   message and an encryption of the digital digest,

the agent includes the date and time of the transmission by the agent to the

server, and

the server transmits to the sender the message and the digital fingerprint of the message and the identity of the sender and the identity and internet address of the server and the identity and internet address of the agent and the status at the agent of the reception at the agent of the message and the digital fingerprint of the message,

5   the delivery status of the message at the agent includes at least one of the following: (a) DELIVERED, (b) RELAYED, (c) DELIVERED-AND-WAITING FOR DELIVERY STATUS NOTIFICATION (DSN), (d) DELIVERED-TO-MAILBOX, and (e) FAILED, UNDELIVERABLE.

10   129. A method as set forth in claim 128, including the steps of:

providing at the server a digital fingerprint of an attachment to the message,

transmitting the attachment to the message to the agent at the same time as the transmittal of the message to the agent,

providing at the agent the status of the reception of the attachment at the

15 same time as the provision at the agent of the status of the reception of the message, and

transmitting to the server from the agent the status of the reception of the attachment at the same time as the transmittal to the server from the agent of the status of the reception of the message.

20   130. (Previously amended) A method of transmitting a message through the internet from a sender to an agent for a recipient through a server displaced from the agent, including the steps at the server of:

providing at the server a digital fingerprint of the message and the identity

of the sender and the identity and internet address of the server,

transmitting to the agent the message and the identity of the sender and the

identity and internet address of the server,

5   receiving from the agent the identity of the sender and the identity and

internet address of the server and the identity and internet address of the agent and an

indication of the status of the reception of the message at the agent, and

transmitting to the sender the message and the information received by the

server from the agent relating to the message.

10

131. A method as set forth in claim 130, including the steps at the server

of:

providing at the server a digital fingerprint of an attachment to the message,

transmitting to the agent the attachment at the same time that the message

15   is transported to the agent,

receiving from the agent the status of the reception at the agent of the

attachment at the same time that the server receives from the agent the status of the

reception at the agent of the message, and

transmitting to the sender the attachment and the information received by

20   the server from the agent relating to the attachment at the same time that the server

transmits to the sender the message and the information received by the server from the

agent relating to the message.

132. A method as set forth in claim 130 wherein

the delivery status of the message at the agent includes at least one of the

following: (a) DELIVERED, (b) RELAYED, (c) DELIVERED-AND-WAITING FOR

DELIVERY STATUS NOTIFICATION (DSN), (d) DELIVERED-TO-MAILBOX, and

5   (e) FAILED, UNDELIVERABLE.

133. A method as set forth in claim 130 wherein

the server receives from the agent the date and time of the transmission by

the agent to the server of the status of the reception of the message at the agent and

10   wherein

the server transmits to the sender the date and time of the transmission by

the agent of the status of the reception by the agent of the message at the same time that

the server transmits to the sender the status of the reception by the agent of the message.

15   134. A method as set forth in claim 133 wherein

the server also transmits to the sender the date and time of the transmission

to the sender of the status of the reception by the agent of the message.

135. A method as set forth in claim 134 wherein

20   the server does not store the message after it transmits the message to the

sender.

136. (Previously amended) A method as set forth in claim 134 wherein

the server transmits to the sender the identity of the sender and the identity

and internet address of the server at the same time that it transmits the message and the

digital fingerprint of the message to the sender and wherein

5   the server stores the identity of the sender and the identity and the internet

address of the server and the digital fingerprint of the message and wherein

the server compares the stored identity of the sender and the identity and

the internet address of the server, all as stored by the server, and the identity of the sender

and the identity and the internet address of the server, all as received by the sender, to

10   authenticate the message transmitted from the server to the sender.

137. (Previously amended) A method as set forth in claim 134 wherein

the server transmits to the sender the identity and internet address of the

agent and the status of the reception of the message, all as received by the server from the

15   agent, and the digital fingerprint of the message and wherein

the server stores the identity and internet address of the agent and the status

of the reception of the message received by the agent, all as received by the server from

the agent and the digital fingerprint of the message, and wherein

the server compares the stored identity and internet address of the agent and

20   the status of the reception of the message and the digital fingerprint of the message with

the identity and internet address of the agent and the status of the reception of the

message and the digital fingerprint of the message all as received by the sender from the

server, to authenticate the message transmitted from the server to the sender.

138. (Previously amended) A method as set forth in claim 136 wherein

5   the server does not store the message after it transmits the message to the

sender and wherein

the server transmits to the sender the identity and internet address of the

agent and the status of the reception of the message received by the agent, all as received

by the server from the agent, and the digital fingerprint of the message, and wherein

10   the server stores the identity and internet address of the agent and the status

of the reception of the message and the digital fingerprint of the message received by the

agent, all as received by the server from the agent, and the digital fingerprint of the

message and wherein

the server compares the stored identity and internet address of the agent and

15   the status of the reception of the message and the digital fingerprint of the message with

the identity and internet address of the agent and the status of the reception of the

message and the digital fingerprint of the message, all as received by the sender from the

server, to authenticate the message transmitted from the sender to the server.

20   139. (Previously presented) A method of authenticating a message

transmitted through the internet from a sender to a recipient through a server displaced

from the recipient, including the steps at the server of:

transmitting to the sender the message and a digital fingerprint of the

message, and a status of the reception of the message by an agent for the recipient,

storing the digital fingerprint of the message at the server and the status of

the reception of the message by the agent,

5   receiving from the sender the digital fingerprint of the message and the

status of the reception of the message by the agent, and

comparing the stored digital fingerprint of the message and the digital

fingerprint of the message as received by the server from the sender to authenticate the

message transmitted from the server to the sender.

10

140. A method as set forth in claim 139 wherein

the server stores the information transmitted by the server relating to the

status of the reception of the message and the digital fingerprint of the message but does

not store the message and wherein

15   the server compares the information stored by the server, and the

information provided by the sender, relating to the status of the reception by the agent of

the message, and the digital fingerprint of the message, to authenticate the message

transmitted by the server to the sender.

20

141.   (Previously amended) A method as set forth in claim 139 wherein

the server transmits to the sender the identity of the sender and the identity

and internet address of the server, all as transmitted by the agent to the server and

wherein

5   the server stores the identity of the sender and the identity and internet

address of the server, all as transmitted by the agent to the server and wherein

the server compares the information stored by the server, and the

information provided by the sender, relating to the identity of the sender and the identity

and information address of the server to authenticate the message transmitted by the

10   server to the sender.

142.   (Previously amended) A method of authenticating a message

transmitted through the internet from a sender to an agent for a recipient through a server

displaced from the agent, including the steps of:

15   transmitting to the sender the message and a digital fingerprint of the

message and a status of a reception by an agent for the recipient of the message,

storing the digital fingerprint of the message at the server, and

comparing the stored digital fingerprint of the message and the digital

fingerprint of the message transmitted to the sender to authenticate the message

20   transmitted from the server to the sender.

143.   The method as set forth in claim 142 wherein

the server does not store the message after it transmits the message to the

sender.

5   144.   A method as set forth in claim 142 wherein

the server transmits to the sender the identity of the sender and the identity

and internet address of the server at the same time that it transmits the message and the

digital fingerprint of the message to the sender and wherein

the server stores the identity of the sender and the identity and the internet

10   address of the server at the same time that it transmits the message and the digital

fingerprint of the message to the sender and wherein

the server receives from the sender the identity of the sender and the

identity and internet address of the server and wherein

the server compares the identity of the sender and the identity and the

15   internet address of the server, all as received by the server from the sender, with the

stored identity of the sender and the stored internet address of the server to authenticate

the message transmitted from the server to the sender.

145. (Currently amended) A method of transmitting an unencrypted message

20   from a sender to a destination address for a recipient through a server displaced from the

destination address, including the steps at the server of,

receiving the <u>unencrypted</u> message from the sender <u>without encrypting the</u>

<u>unencrypted message,</u>

transmitting the <u>unencrypted</u> message to the destination address through a path

including servers between the server and the destination address, and

5   transmitting to the sender the <u>unencrypted</u> message and the path of transmission of

the <u>unencrypted</u> message between the server and the destination address.

146. (Currently amended) A method as set forth in claim [[237]] <u>145</u> wherein

the server receives from the sender the <u>unencrypted</u> message and the path of

10   transmission of the <u>unencrypted</u> message between the server and the destination address

and wherein

the server authenticates the <u>unencrypted</u> message on the basis of the <u>unencrypted</u>

message and the path of transmission of the <u>unencrypted</u> message between the server and

the destination address <u>without encrypting the unencrypted message</u>.

15

147. (Currently amended) A method as set forth in claim 14[[6]][[5]] wherein

the server does not retain the <u>unencrypted</u> message after it transmits the

<u>unencrypted</u> message to the sender <u>before any authentication of the unencrypted message</u>.

20   148. (Currently amended) A method as set forth in claim 145 wherein

the destination address is one of a plurality of destination addresses receiving the

unencrypted message from the server <u>and wherein</u>

the server distinguishes each of the destination addresses in the plurality in the

transmission of the unencrypted message to the destination addresses in the plurality

without encrypting the unencrypted message.

5   149. (Currently amended) A method as set forth in claim 145 wherein

the path of transmission of the unencrypted message between the server and the

destination address includes the identity and address of the server and the identity of a

recipient at the destination address.

10   150. (Currently amended) A method as set forth in claim 146 wherein

the server does not retain the unencrypted message after it transmits the

unencrypted message to the sender before any authentication of the unencrypted message

and wherein

the destination address is one of a plurality of destination addresses

15   receiving the unencrypted message from the server and wherein

the server distinguishes each of the destination addresses in the plurality in

the transmission of the unencrypted messages to the destination addresses in the plurality

without encrypting the unencrypted message, and wherein

the message has an attachment and wherein

20   the attachment identifies the path of transmission of the unencrypted

message between the server and the destination address without encrypting the

unencrypted message.

159. (Currently amended) A method of providing a delivery at a server of an unencrypted electronic message from the server to a destination address, including the steps at the server of:

    receiving at the server ~~the unencrypted~~ [[an]] the unencrypted electronic

5   message from a sender for transmission to the destination address without encrypting the unencrypted electronic message,

    transmitting the unencrypted electronic message from the server to the destination address via a protocol selected from a group consisting of an SMTP protocol and an ESMTP protocol without encrypting the unencrypted electronic message, and

10   receiving at the server the transmission of the electronic message between the server and the destination address via the selected one of the SMTP and ESMTP protocols without encrypting the unencrypted electronic message.

160. (Currently amended) A method as set forth in claim 159, including the

15 step of:

    without encrypting the unencrypted electronic message, including, in the transmission between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the identity of the sender, the identity and address of the server and the destination address.

20

161. (Currently amended) A method as set forth in claim 159, including the steps of:

providing a transmission of the <u>unencrypted electronic</u> message from the

server to the sender <u>without encrypting the unencrypted electronic message,</u>

including, in the transmission from the server to the sender, a digital

signature of the <u>unencrypted</u> electronic message <u>without encrypting the unencrypted</u>

5   <u>electronic message.</u>

162.   (Currently amended) A method as set forth in claim 159, including the step

of:

<u>without encrypting the unencrypted electronic message,</u> recording, in the

10   transmission between the server and the destination address via the selected one of the

<u>SMTP and ESMTP</u> protocols, the time for the transmission of the <u>unencrypted electronic</u>

message from the server to the destination address and the time for the ~~receipt~~ <u>reception</u>

of the <u>unencrypted electronic</u> message at the destination address.

15   163.   (Currently amended) A method as set forth in claim 160, including the

steps <u>at the server</u> of:

including, in the transmission of the <u>unencrypted</u> message between the

server and the sender, a digital signature of the transmission of the <u>unencrypted</u> electronic

message between the server and the destination address via the selected one of the <u>SMTP</u>

20   <u>and ESMTP</u> protocols <u>without encrypting the unencrypted electronic message,</u> and

recording, in the transmission between the server and the destination

address via the selected one of the <u>SMTP and ESMTP</u> protocols, the time for the

transmission of the <u>unencrypted</u> message from the server to the destination address and

the time for the receipt of the message at the destination address.

5

164. (Currently amended) A method as set forth in claim 159, including the step

<u>at the server</u> of:

including, in the transmission of the <u>unencrypted electronic</u> message

between the server and the destination address via the selected one of the <u>SMTP and</u>

10   <u>ESMTP</u> protocols, the status of the delivery of the <u>unencrypted electronic</u> message at the

destination <u>address</u> from the server <u>without encrypting the unencrypted electronic</u>

<u>message</u>.

165. (Currently amended) A method as set forth in claim 159, including the step

15   of:

receiving at the server a delivery status notification relating to the status of the

delivery of the <u>unencrypted electronic</u> message at the destination address and the delivery

of the <u>unencrypted electronic</u> message from the destination address to a recipient <u>without</u>

<u>encrypting the unencrypted electronic message</u>.

20

166. (Currently amended) In a method of verifying at a first server a delivery of

an <u>unencrypted</u> electronic message to a destination server for a recipient, the steps at the

first server of:

transmitting the <u>unencrypted</u> electronic message from the first server to the

5   destination server via a protocol selected from the group consisting of an SMTP protocol

and an ESMTP protocol,

receiving, at the first server from the destination server, the transmission between

the first server and the destination server <u>of the unencrypted electronic message</u> via the

selected one of the <u>SMTP and ESMTP</u> protocols <u>without encrypting the unencrypted</u>

10   <u>electronic message</u>, and

transmitting from the first server to the sender the <u>unencrypted electronic</u> message

and the transmission between the first server and the destination server via the selected

one of the <u>SMTP and ESMTP protocols without encrypting the unencrypted electronic</u>

<u>message</u> protocols.

15

167. (Currently amended) In a method as set forth in claim 166, the step <u>at the</u>

<u>first server</u> of:

<u>without encrypting the unencrypted electronic message,</u> transmitting from the first

server to the sender the <u>unencrypted electronic</u> message at the time of the completion of

20   the transmission of the <u>unencrypted electronic</u> message between the first server and the

destination server via the selected one of the <u>SMTP and ESMTP</u> protocols.

168. (Currently amended) In a method as set forth in claim 166, the

step <u>at the first server</u> of:

        <u>without encrypting the unencrypted electronic message,</u> discarding the message at

the first server after the transmission of the <u>unencrypted electronic</u> message [[in]] [[<u>via</u>]]

5   the selected one of the <u>SMPT and ESMPT</u> protocols by the first server to the sender.

169. (Currently amended) In a method as set forth in claim 166, the steps <u>at the</u>

<u>first server</u> of:

        <u>without encrypting the unencrypted electronic message,</u> providing at the first

10   server a digital signature of the <u>unencrypted electronic</u> message, and

        <u>without encrypting the unencrypted electronic message,</u> transmitting the digital

signature of the <u>unencrypted electronic</u> message from the first server to the sender at the

time of the transmission of the <u>unencrypted electronic</u> message from the first server to the

sender.

15

170. (Currently amended) In a method as set forth in claim 169, the steps <u>at the</u>

<u>first server</u> of:

        <u>without encrypting the unencrypted electronic message</u> transmitting from the first

server to the sender the <u>unencrypted electronic</u> message after the transmission of the

20   <u>unencrypted electronic</u> message between the first server and the destination server via

the selected one of the <u>SMTP and ESMTP</u> protocols, and

without encrypting the unencrypted electronic message, releasing the unencrypted

electronic message at the first server after the transmission of the unencrypted electronic

message via the selected one of the SMTP and ESMTP protocols by the first server to the

sender.

5

171 (Currently amended) In a method as set forth in claim 170, the step at the

first server of:

without encrypting the unencrypted electronic message, transmitting between the

first server and the destination server the identity of the sender, the identity and address

10   of the first server and the identity and address of the destination server and the time of the

receipt of the unencrypted electronic message by the first server and the time of the

transmission to the first server from the destination server of the identity of the sender,

the identity and address of the first server and the identity and address of the destination

server.

15

172 (Currently amended) In a method as set forth in claim 166, the step of:

without encrypting the unencrypted electronic message, receiving at the first

server from the destination server a delivery status notification indicating the status of the

delivery of the unencrypted electronic message from the first server to the destination

20   server and the time of the transmission of the delivery status notification by the

destination server to the first server.

173   (Currently amended) In a method of verifying at a first server a[[n]]

<u>unencrypted</u> message received by the first server from a sender and transmitted by the

first server to a destination server for a recipient, the steps <u>at the first server</u> of:

      <u>without encrypting the unencrypted electronic message</u> receiving at the first server

5   from the destination server an attachment including transmissions between the first server

and the destination server relating to the <u>unencrypted electronic</u> message from the sender,

the transmissions between the first server and the destination server being provided via a

protocol selected from the group consisting of an SMTP protocol and an ESMTP

protocol,

10   <u>without encrypting the unencrypted electronic message,</u> transmitting from the first

server to the sender the <u>unencrypted electronic</u> message and the attachment including the

transmissions between the first server and the destination server via the selected one of

the SMTP protocol and the ESMTP protocol,

      <u>without encrypting the unencrypted electronic message,</u> transmitting from the

15   sender to the first server the <u>unencrypted electronic</u> message and the attachment including

the transmissions via the selected one of the SMTP and ESMTP protocols, and

      authenticating the message on the basis of the <u>unencrypted electronic</u> message and

the attachment including the transmission via the selected one of the SMTP and ESMTP

protocols.

20

174. (Currently amended) In a method as set forth in claim 173, wherein:

the attachment includes transmissions between servers intermediate[[;]] the first

server and the destination server.

5   175. (Currently amended) In a method as set forth in claim 17[[0]]3, the step <u>at</u>

<u>the first server</u> of:

<u>without encrypting the unencrypted electronic message,</u> removing the <u>unencrypted</u>

<u>electronic</u> message from the first server when the first server transmits to the sender the

<u>unencrypted electronic</u> message and the attachment including the transmissions between

10   the first server and the destination server via the selected one of the SMTP protocol and

the ESMTP protocol.

176. (Currently amended) In a method as set forth in claim 173, the steps <u>at the</u>

<u>first server</u> of:

15   <u>without encrypting the unencrypted electronic message</u> receiving at the first server

from the destination server the transmission of the identity of the sender, the identity and

address of the first server and the identity and address of the destination server via the

protocol selected from the group consisting of the SMTP protocol and the ESMTP

protocol, and

20   <u>without encrypting the unencrypted electronic message</u> transmitting from the first

server to the sender the identity of the sender, the identity and address of the first server

and the identity and address of the destination server at the time of the transmission from

the first server to the sender of the <u>unencrypted</u> message and the transmission between the first server and the destination server via the protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol.

5   177 (Currently amended) In a method as set forth in claim 173, the steps <u>at the first server</u> of

    <u>without encrypting the unencrypted electronic message,</u> providing at the first server digital signatures of the <u>unencrypted electronic</u> message and the attachment including the transmission between the first server and the destination server relating to

10 the <u>unencrypted electronic</u> message from the sender, and

    <u>without encrypting the unencrypted electronic message,</u> transmitting from the first server to the sender the <u>unencrypted electronic</u> message and the digital signatures of the <u>unencrypted electronic</u> message and the attachment.

15   178. (Currently amended) In a method as set forth in claim 173, the steps <u>at the first server</u> of:

    <u>without encrypting the unencrypted electronic message,</u> transmitting from the first server to the sender the identity of the sender, the identity and address of the first server and the identity and address of the destination server at the time that the <u>unencrypted</u>

20 <u>electronic</u> message and the transmissions between the first server and the destination server are transmitted from the first server to the sender,

without encrypting the unencrypted electronic message, transmitting from the

sender to the first server the information transmitted from the first server to the sender,

and

authenticating the unencrypted electronic message at the first server on the basis of

5   the information transmitted from the sender to the first server and representing the

information previously transmitted from the first server to the sender.

179 (Currently amended) A method of verifying delivery at a first server of an

encrypted electronic message to a destination server for a recipient, including the steps at

10   the first server of:

receiving at the first server [[an]] the unencrypted electronic message from a

message sender for transmission to the destination server without encrypting the

unencrypted electronic message,

without encrypting the unencrypted electronic message, transmitting the

15   unencrypted electronic message from the first server to the destination server via a

protocol selected from a group consisting of an SMTP protocol and an ESMTP protocol,

without encrypting the unencrypted electronic message, receiving at the first

server the transmissions between the first server and the destination server via the

selected one of the SMTP and ESMTP protocols, and

20   without encrypting the unencrypted electronic message transmitting from the first

server to the sender the unencrypted electronic message and at least a particular portion

of the transmission[[s]] between the first server and the destination server via the selected

one of the SMTP and ESMTP protocols.

180 (Currently amended) A method as set forth in claim 179 wherein

5   the unencrypted electronic message and the at least particular portion of the

transmissions via the selected one of the SMTP and ESMTP protocols to the sender are

provided by the sender to the first server without encrypting the unencrypted electronic

message, and wherein

the unencrypted message is authenticated by the first server on the basis of the

10   unencrypted electronic message and the at least particular portion of the transmissions

from the sender to the first server.

181. (Currently amended) A method as set forth in claim 17[[8]][[9]] wherein

a digital signature is provided of the unencrypted electronic message at the first

15   server without encrypting the unencrypted electronic message and wherein

the digital signature is transmitted from the first server to the sender with the

message and the at least particular portion of the transmission[[s]] between the first

server and the destination server without encrypting the unencrypted electronic message

and wherein

20   the digital signature is thereafter provided by the sender to the first server with the

unencrypted electronic message and the at least particular portion of the transmission[[s]]

via the selected one of the_SMTP and ESMTP protocols <u>without encrypting the</u>

<u>unencrypted electronic message</u>.

182. (Currently amended) A method as set forth in claim 180 wherein

5   <u>without encrypting the unencrypted electronic message,</u> a digital signature of the

<u>unencrypted electronic</u> message and a digital signature of the transmission[[s]] provided

via the selected one of the SMTP and ESMTP protocols are produced at the first server

and are transmitted to the sender with the <u>unencrypted electronic</u> message and the

transmissions provided [[in]] via the selected one of the SMTP and ESMTP protocols and

10   wherein

the digital signatures and the <u>unencrypted electronic</u> message and the at least

particular portion of the transmission[[s]] via the selected one of the SMTP and ESMTP

protocols to the sender are thereafter provided by the sender to the first server <u>without</u>

<u>encrypting the unencrypted electronic message</u> and wherein

15   <u>without encrypting the unencrypted electronic message,</u> digital fingerprints are

produced at the first server from the <u>unencrypted electronic</u> message and the digital

signature of the <u>unencrypted electronic</u> message provided by the sender to the first server

and wherein

the <u>unencrypted electronic</u> message is authenticated at the first server by

20   establishing an identity between the digital fingerprints produced at the first server.

183. (Currently amended) A method of verifying at a first server the delivery of

an <u>unencrypted</u> electronic message from the first server to a destination server ~~for a~~

~~destination address~~ including the steps of:

<u>without encrypting the unencrypted electronic message,</u> receiving at the first

5   server [[an]] <u>the unencrypted</u> electronic message from a message sender for transmission

to the destination server,

<u>without encrypting the unencrypted electronic message,</u> transmitting the electronic

message from the first server to the destination server,

<u>without encrypting the unencrypted electronic message,</u> receiving at the first

10   server the transmission[[s]] between the first server and the destination server via a

protocol selected from the group consisting of the SMTP protocol and the ESMTP

protocol,

<u>without encrypting the unencrypted electronic message,</u> transmitting from the first

server to the sender the <u>unencrypted electronic</u> message and [[the]] <u>an unencrypted</u>

15   <u>electronic</u> transmission between the first server and the destination server ~~in~~ via the

selected one of the <u>SMTP and ESMTP</u> protocols,

<u>without encrypting the unencrypted electronic message,</u> receiving at the first

server from the sender the <u>unencrypted electronic</u> message and the <u>unencrypted</u>

<u>electronic</u> transmission between the first server and the destination server [[in]] via the

20   selected one of the <u>SMTP and ESMTP</u> protocols, and

authenticating the _unencrypted electronic_ message at the first server on the basis of

the _unencrypted electronic_ message received by the first server from the sender and the

unencrypted electronic transmission[[s]] received by the first server from the sender.

5   187. (Currently amended) A method as set forth in claim 163, including the steps

of:

        without encrypting the unencrypted electronic message, transmitting from the

sender to the server the _unencrypted electronic_ information transmitted from the server to

the sender, and

10   authenticating the _unencrypted_ electronic message on the basis of the information

transmitted from the sender to the server.

        188. (Currently amended) A method as set forth in claim 163, _including_ the steps

of:

15   _without encrypting the unencrypted electronic message,_ providing a digital

signature of the _unencrypted electronic_ message and a digital signature of an _unencrypted_

electronic attachment including the transmissions between the server and the destination

server via the selected one of _SMTP and ESMTP_ the protocols, and

        without encrypting the unencrypted electronic message, transmitting the digital

20 signature of the _unencrypted electronic_ message and the digital signature of the

attachment from the server to the sender at the same time that the _unencrypted electronic_

message and the <u>unencrypted electronic</u> attachment are transmitted from the server to the

sender.

189.   (Currently amended) A method as set forth in claim 17[[2]][[3]], including

5   the steps <u>at the first server</u> of:

generating at the first server a digital signature of the <u>unencrypted electronic</u>

message and a digital signature of the <u>unencrypted electronic</u> attachment including the

transmission between the first server and the destination server via the selected one of the

<u>SMTP and ESMTP</u> protocols <u>without encrypting the unencrypted electronic message,</u>

10   and

transmitting from the first server to the sender the <u>unencrypted electronic</u> message

and the <u>unencrypted electronic</u> attachment and the digital signatures of the <u>unencrypted</u>

<u>electronic</u> message and the <u>unencrypted electronic</u> attachment <u>without encrypting the</u>

<u>unencrypted electronic message.</u>

15

190. (Currently amended) A method as set forth in claim 173, including the steps

<u>at the first server</u> of:

<u>without encrypting the unencrypted electronic message,</u> providing a digital

signature of the <u>unencrypted electronic</u> message and a digital signature of the

20   <u>unencrypted electronic</u> attachment including the transmission between the first server and

the destination server via the selected one of the <u>SMTP and ESMTP</u> protocols, and

without encrypting the unencrypted electronic message, before any authentication

of the unencrypted electronic message, transmitting the digital signatures from the first

server to the sender at the same time as the transmission from the first server to the

sender of the unencrypted electronic message and the unencrypted electronic attachment

5   including the transmission via the selected one of the SMTP and ESMTP protocols.

191. (Currently amended) A method as set forth in claim 189, including the steps

at the first server of:

without encrypting the unencrypted electronic message, transmitting from the

10   sender to the first server the unencrypted electronic message and the digital signature of

the unencrypted electronic message and the unencrypted electronic attachment and the

digital signature of the unencrypted electronic attachment including the transmission[[s]]

between the first server and the destination server via the selected one of the SMTP and

ESMTP protocols, and

15   authenticating the message on the basis of the digital signatures and the

unencrypted electronic message and the unencrypted electronic attachment transmitted

from the sender to the first server via the selected one of the SMTP and ESMTP

protocols.

192.   (Previously amended) A method of authenticating a message

transmitted from a sender to a recipient, including the steps at the server of:

providing a digital signature of the message,

transmitting the message and the digital signature to the sender,

5   receiving the message and the digital signature from the sender, and

authenticating the message on the basis of the message and the digital signature

received by the server from the sender.

193.   (Previously amended) A method as set forth in claim 192, wherein

10   the server prepares a digital signature of the message and a digital signature

of an attachment including an identification of the sender and an identification and

address of the server and an identification and address of the recipient and a digital

signature of the attachment and wherein

the server transmits to the sender the message and the digital signature of the

15   message and the attachment including the identification of the sender and the

identification and address of the server and the identification and address of the recipient

and the digital signature of the attachment and wherein

the server receives from the sender the message and the digital signature of the

message and the attachment and the digital signature of the attachment and wherein

20   the server authenticates the message on the basis of the message and the digital

signature of the message and the attachment and the digital signature of the attachment all

as received by the server from the sender.

194.   (Previously amended) A method as set forth in claim 192 wherein

the server prepares a digital signature of the message and an attachment including

a selected one of the SMPT and ESMPT protocols involved in the transmission of the

message from the server to the recipient and a digital signature of the attachment and

5   wherein

the server transmits to the sender the message and the digital signature of the

message and the attachment including the selected one of the SMPT and ESMPT

protocols and the digital signature of the attachment and wherein

the server receives from the sender the message and the digital signature of the

10   message and the attachment and the digital signature of the attachment and wherein

the server authenticates the message on the basis of the message and the digital

signature of the message received by the server from the sender.

195.   (Previously amended) A method as set forth in claim 192 wherein

15   the server authenticates the message by preparing a digital fingerprint of the

message and a digital fingerprint of the digital signature and by comparing the prepared

digital fingerprints of the message and the digital signature of the message and

confirming that they are identical.

20   196.   (Previously amended) A method as set forth in claim 194 wherein

the server authenticates the message by preparing a digital fingerprint of the

message and a digital fingerprint of the attachment including the identification of the

sender and the identification and address of the server and the identification and address

of the recipient and by comparing the prepared digital fingerprint of the message and the

digital signature of the message and confirming that they are identical and by comparing

the prepared digital fingerprints of the attachment and the digital signature of the

5   attachment and confirming that they are identical.

197.   (Previously amended) A method as set forth in claim 194 wherein

the server authenticates the attachment by preparing a digital fingerprint of the

attachment and a digital fingerprint of the digital signature of the attachment including

10   the selected one of the SMPT and ESMPT protocols and by comparing the digital

fingerprints and confirming that they are identical.

198.   (Previously amended) A method as set forth in claim 194 wherein

the server transmits the message and the attachment and the digital signatures of

15   the message and the attachment to the sender without retaining a copy of the message and

the attachment and the digital signatures of the message and the attachment.

199.   (Previously amended) A method as set forth in claim 194 wherein

the server transmits to the sender the message and the attachment and the digital

20   signatures of the message and of the attachment and the identification of the sender and

the identification and address of the server and the identification and address of the

recipient without retaining any of this information.

200. (Previously amended) A method as set forth in claim 197 wherein

the server transmits to the sender the message and the digital signature of the

message and the attachment including the selected one of the SMPT and ESMPT

protocols and the digital signature of the attachment without retaining any of this

5   information.

201. (Previously amended) A method of transmitting a message through the

internet from a sender to a recipient through a server displaced from the recipient,

including the steps at the server of:

10   transmitting to the recipient the message and an attachment including an

identification of the sender and an identification and address of the server and an

identification and address of the recipient,

receiving from the recipient the identification of the sender and an identification

and address of the server and an identification and address of the recipient, and

15   transmitting to the sender the message and the attachment including the

identification of the sender and the identification and address of the server and the

identification and address of the recipient.

202. (Previously amended) A method as set forth in claim 201 wherein

20   the server prepares a digital signature of the message and transmits the digital

signature of the message to the sender with the message.

203.   (Previously amended) A method as set forth in claim 202 wherein

the server does not retain a copy of the message and the digital signature of the

message when it transmits the message and the digital signature of the message to the

sender.

5

204.   (Previously amended) A method as set forth in claim 202 wherein

the server prepares a digital signature of the attachment and transmits this digital

signature of the attachment to the sender at the same time that it transmits the attachment

to the sender and wherein

10   the sender transmits to the server the message and the digital signature of the

message and the attachment and the digital signature of the attachment when the sender

desires to obtain an authentication of the message and the attachment.

205.   (Previously amended) A method as set forth in claim 204 wherein

15   the server provides an authentication of the message and the attachment and the

digital signatures of the message and the attachment, all as received by the server from

the sender.

206.   (Previously amended) A method of transmitting a message through the

20   internet from a sender to a recipient through a server displaced from the recipient,

including the steps at the server of:

transmitting to the recipient the message and an identification of the sender and a

protocol selected from a group consisting of SMPT and ESMPT protocols.

receiving from the recipient the selected one of the protocols, and

transmitting to the sender the message and the selected one of the protocols.

5

207.   (Previously presented) A method as set forth in claim 206, including the

steps of:

preparing at the server a digital signature of the message, and

transmitting the digital signature from the server to the sender with the message.

10

208.   (Previously amended) A method as set forth in claim 206, including the

step of:

not retaining at the server a copy of the message and the digital signature of the

message when the server transmits the message and the digital signature of the message

15   to the sender.

209.   (Previously amended) A method as set forth in claim 206, including the

step of:

preparing at the server a digital signature of the message and a digital signature of

20   the selected one of the protocols, and

transmitting the digital signatures from the server to the sender with the message

and the selected one of the protocols.

210.   (Previously amended) A method as set forth in claim 207, including the

steps of:

preparing at the server a digital signature of the [message and] of the selected one

of the protocols, and

5   transmitting the digital signature of the message from the server to the sender with

the message and the digital signature of the selected one of the protocols with the

protocol, and

not retaining at the server a copy of the message and the digital signature of the

message and the selected one of the protocols and the digital signature of the selected one

10   of the protocols when the server transmits the message and the digital signature of the

message and the selected one of the protocols and the digital signature of the selected one

of the protocols to the sender.

211.   (Previously presented) A method as set forth in claim 208, including the

15   steps of:

transmitting the message and the digital signature of the message from the sender

to the server, and

authenticating the message on the basis of the message and the digital signature

transmitted from the sender to the server.

20

212. (Previously presented) A method as set forth in claim 210, including the steps of:

transmitting from the sender to the server the message, the digital signature of the message, the attachment and the digital signature of the attachment, and

5   authenticating the message on the basis of the message and the digital signature of the message transmitted from the sender to the server and authenticating the attachment on the basis of the attachment and the digital signature of the attachment transmitted from the sender to the server.

10   213. (Previously presented) In a method of authenticating a message transmitted through the internet by a server from a sender to an agent of a recipient, the steps at the server of:

transmitting to the recipient the message and an attachment including the identity of the sender and the identity and address of the server and the identity and address of the

15 recipient, and

receiving the indication by the agent of the receipt of the message by the agent, and

including the indication of the receipt of the message by the agent in the attachment.

20

213.   (Previously presented) In a method as set forth in claim 213, the step at the server of:

creating a digital signature of the message and a digital signature of the attachment.

5

215.   (Previously presented) In a method as set forth in claim 214, the step at the server of:

transmitting to the sender the message and the digital signature of the message and the attachment and the digital signature of the attachment.

10

216.   (Previously presented) In a method as set forth in claim 215, the step at the server of:

receiving from the sender the message and the attachment and the digital signatures of the message and the attachment.

15

217.   (Previously presented) In a method as set forth in claim 216, the step at the server of:

authenticating the message on the basis of the message and the attachment and the digital signature of the message and the attachment, all as received by the server from the

20   sender.

218. (Previously presented) In a method of authenticating a message transmitted through the internet by a server from a sender to an agent of recipient, the steps at the server of:

receiving from the agent a protocol selected from a group consisting of SMPT and

5 ESMPT protocols after the transmission of the message from the server to the agent of the message by the selected one of the protocols, and

providing at the server a digital signature of the message, and

transmitting the message and the digital signature of the message from the server to the sender.

10

219. (Previously presented) In a method as set forth in claim 218, the step of:

disposing of the message and the digital signature of the message at the server after the transmission of the message and the digital signature of the message from the server to the sender.

15

220. (Previously presented) In a method as set forth in claim 219, the steps of:

receiving at the server the message and the digital signature of the message after the disposition of the message and the digital signature of the message at the server, and

authenticating the message at the server on the basis of the message and the digital

20 signature of the message received by the server from the sender.

221.   (Previously presented) In a method as set forth in claim 218, the steps of:

providing an attachment including the selected one of the protocols,

providing a digital signature of the attachment, and

transmitting from the server to the sender the attachment and the digital signature

5   of the attachment at the same time as the transmission of the message and the digital

signature of the message from the server to the sender.

222.   (Previously presented) In a method as set forth in claim 221, the step of:

disposing of the message and the attachment and the digital signature of the

10   message and the attachment at the server after the transmission of the message and the

digital signature of the message and the attachment and the digital signature of the

attachment from the server to the sender.

223.   (Previously presented) In a method as set forth in claim 222, the steps of:

15   receiving at the server from the sender the message, the attachment and the digital

signatures of the message and the attachment after the disposition of the message and the

digital signature of the message and the attachment and the digital signature of the

attachment at the server, and

authenticating the message and the attachment at the server on the basis of the

20   message and the digital signature of the message and the attachment and the digital

signature of the attachment, all as received at the server from the sender.

224. (Previously presented) In a method as set forth in claim 220 wherein the authentication is provided by generating at the server a digital fingerprint of the message, and a digital fingerprint of the digital signature of the message, received by the server from the sender and comparing the digital fingerprints generated at the server.

5

225. (Previously presented) In a method as set forth in claim 223 wherein the authentication is provided as follows:

generating at the server a digital fingerprint of the message from the message received by the server from the sender, and a digital fingerprint of the digital signature of

10   the message received at the server, and comparing the digital fingerprints generated at the server, and

226. (Currently amended) In a method of authenticating a[[n]] unencrypted message provided by a sender and transmitted to a destination server by a

15   second server displaced from the sender and the destination server, the steps at the second server of:

without encrypting the unencrypted electronic message, providing an unencrypted electronic attachment transmitted between the second server and the destination server via a selected one of SMTP and ESMTP protocols, and

20   transmitting the unencrypted electronic attachment from the second server to the sender without encrypting the unencrypted electronic message or the unencrypted electronic attachment.

227. (Currently amended) In a method as set forth in claim 226, the steps at the second server of:

providing a digital signature of the <u>unencrypted electronic</u> attachment at the second server <u>without encrypting the unencrypted electronic message or the unencrypted</u>

5   <u>electronic attachment,</u> and

<u>without encrypting the unencrypted electronic message or the unencrypted</u>

<u>electronic attachment,</u> transmitting the digital signature[[s]] <u>or the unencrypted electronic</u>

<u>message and</u> from the second server to the sender at the time of transmitting the

<u>unencrypted electronic</u> attachment from the second server to the sender.

10

228. (Currently amended) In a method as set forth in claim 227, the steps at the second server of:

<u>without encrypting the unencrypted electronic attachment,</u> receiving the

<u>unencrypted electronic</u> attachment and the digital signature <u>of the unencrypted electronic</u>

15   <u>attachment</u> at the second server from the sender, and

authenticating the attachment at the second server on the basis of the <u>unencrypted</u>

<u>electronic</u> attachment and the digital signature received by the second server from the

sender <u>of the unencrypted electronic attachment</u>.

20   229. (Currently amended) In a method as set forth in claim 227, the steps

at the second server of:

receiving the <u>unencrypted electronic</u> attachment and the digital signature <u>of the</u>

<u>unencrypted electronic attachment</u> at the second server from the sender <u>without</u>

<u>encrypting the unencrypted electronic message,</u>

without encrypting the unencrypted electronic attachment, providing at the second

server digital fingerprints of the unencrypted electronic attachment and the digital

signature received at the second server from the sender of the unencrypted electronic

attachment, and

5   comparing the digital fingerprints to authenticate the unencrypted electronic

attachment.

230.   (Currently amended) In a method of authenticating a[[n]] unencrypted

message provided by a sender and transmitted to a destination server by a second server

10   displaced from the sender and the destination server, the steps at the second server of:

without encrypting the unencrypted electronic message, providing an unencrypted

electronic attachment including the identity and address of the sender and the identity

and address of the second server and the identity and address of the destination server,

and

15   transmitting the unencrypted electronic attachment from the second server to the

sender without encrypting the unencrypted electronic attachment.

231.   (Currently amended) In a method as set forth in claim 230 wherein

the unencrypted electronic attachment includes the address and identity of

20   intermediate stations receiving the unencrypted electronic attachment in the transmission

of the unencrypted electronic message attachment between the second server and the

destination server.

232. (Currently amended) In a method as set forth in claim 230, the steps at the second server of:

providing a digital signature of the <u>unencrypted</u> attachment at the second server <u>without encrypting the unencrypted attachment,</u> and

5   <u>without encrypting the unencrypted attachment,</u> transmitting the digital signature <u>of the unencrypted attachment</u> from the second server to the sender[[,]] at the time of transmitting the <u>unencrypted</u> attachment from the second server to the sender.

233. (Currently amended) In a method as set forth in claim 231, the steps at the
10   second server of:

providing a digital signature of the <u>unencrypted</u> attachment at the second server <u>without encrypting the unencrypted attachment,</u> and

<u>without encrypting the unencrypted attachment,</u> transmitting the digital signature <u>of the unencrypted attachment</u> from the second server to the sender[[,]]at the time of
15   transmitting the <u>unencrypted</u> attachment from the second server to the sender.

234. (Currently amended) In a method as set forth in claim 232, the steps at the second server of:

<u>without encrypting the unencrypted attachment,</u> receiving the <u>unencrypted</u>
20   attachment and the digital signature <u>unencrypted attachment</u> at the second server from the sender, and

authenticating the <u>unencrypted</u> attachment at the second server on the basis of the

<u>unencrypted</u> attachment and the digital signature received by the second server from the

sender <u>of the unencrypted attachment</u>.

235. (Currently amended) In a method as set forth in claim 233, the step[[s]] at

the second server of:

authenticating the <u>unencrypted</u> attachment at the second server on the basis of the

<u>unencrypted</u> attachment and the digital signature received by the second server from the

sender <u>of the encrypted attachment</u>.

236. (Currently amended) In a method as set forth in claim 232, the steps at the

second server of:

receiving the <u>unencrypted</u> attachment and the digital signature at the second

server <u>of the unencrypted attachment</u> from the sender <u>without encrypting the unencrypted</u>

<u>attachment,</u>

<u>without encrypting the unencrypted electronic message,</u> providing at the second

server digital fingerprints of the <u>unencrypted</u> attachment and the digital signature

received at the second server from the sender <u>of the unencrypted attachment,</u> and

comparing the digital fingerprints <u>at the second server</u> to authenticate the

attachment.

237.   (Currently amended) In a method as set forth in claim 233, the steps at the second server of:

receiving the unencrypted attachment and the digital signature of the encrypted attachment at the second server from the sender,

5   without encrypting the unencrypted attachment, providing at the second server digital fingerprints of the unencrypted attachment and the digital signature received at the second server from the sender of the unencrypted attachment , and

comparing the digital fingerprints to authenticate the attachment.

10   238   (Currently amended) In a method of verifying authenticating at a server [[a]] an unencrypted electronic message and delivery of [[an]] the unencrypted electronic message to a destination address, the steps of:

transmitting the unencrypted electronic message between the server and the destination address without encrypting the unencrypted electronic message,,

15   receiving at the server the path of transmission of the unencrypted message between the server and the destination address without encrypting the unencrypted electronic message, the path including servers between the server and the destination address, and

without encrypting the unencrypted electronic message, transmitting to the sender

20   the unencrypted electronic message and the path of transmission of the unencrypted electronic message between the server and the destination [[or]] address.

239. (Currently amended) In a method as set forth in claim 238 wherein

the server does not retain the <u>unencrypted</u> message or the path of transmission of

the <u>unencrypted</u> message between the server and the destination address after the server

transmits to the sender the <u>unencrypted</u> message and the path of transmission of the

5   message between the server and the destination address.

240. (Currently amended) In a method as set forth in claim 238 wherein

<u>without encrypting the unencrypted electronic message,</u> the server receives from

the sender the <u>unencrypted</u> message and the path of transmission of the <u>unencrypted</u>

10   message between the server and the destination address and wherein

the server authenticates the <u>unencrypted</u> message on the basis of the <u>receipt by the</u>

<u>server from the sender of the unencrypted</u> message[[,]] and the path of transmission of

the <u>unencrypted</u> message between the server and the destination address, received by the

server from the sender.

15

241. (Currently amended) In a method as set forth in claim 240 wherein

the server provides a digital signature of the <u>unencrypted</u> message and transmits

the digital signature with the <u>unencrypted</u> message to the sender and wherein

the server receives from the sender the <u>unencrypted</u> message and the digital

20   signature of the <u>unencrypted</u> message and wherein

the server provides digital fingerprints of the <u>unencrypted</u> message and the digital

signature and compares the digital fingerprints to authenticate the <u>unencrypted</u> message.

242. (Currently amended) In a method as set forth in claim 240 wherein

the server provides a digital signature of the path of transmission of the

unencrypted message between the server and the destination address and transmits the

digital signature to the sender with the path of transmission and wherein

5   the server receives from the sender the path of transmission and the digital

signature of the path of transmission and wherein

the server provides digital fingerprints of the path of transmission and the digital

signature of the path of the transmission and compares the digital fingerprints to

authenticate the unencrypted message.

10

PLEASE ADD THE FOLLOWING NEW CLAIMS

243. (New) A method of providing a delivery at a server of an unencrypted message from the server to a designated address, including the steps at the server of:

receiving at the server the unencrypted message from a sender for transmission to the designated address without encrypting the unencrypted message,

transmitting the unencrypted message from the server to the designated address via a particular protocol without encrypting the unencrypted message, and

without encrypting the unencrypted message, receiving at the server the transmission of the unencrypted message between the server and the designated address via the particular protocol before any authentication of the unencrypted message.

244. (New) A method set forth in claim 243, including the steps at the server of

without encrypting the unencrypted message, providing a digital signature of the unencrypted message, and

without encrypting the unencrypted message, providing for the transmission from the server to the sender of the unencrypted message and the digital signature of the unencrypted message,

245. (New) A method as set forth in claim 244, including the step as the server of:

without encrypting the unencrypted message, providing a reception at the server of the unencrypted message, and the digital signature of the unencrypted message, from the sender.

246.   (New) A method as set forth in claim 244, indicating the step of the server

of:

authenticating the unencrypted message at the server on the basis of the

unencrypted message, and the digital signature of the unencrypted message, received at

5   the server from the sender.

247.   (New) A method as set forth in claim 245, including the steps at the server

of:

without encrypting the unencrypted message, providing digital fingerprints of the

10   digital signature and of the unencrypted message, and

comparing the digital fingerprints to authenticate the unencrypted message.

248.   (New) A method as set forth in claim 243, including the step at the server

of:

15   without encrypting the unencrypted message, receiving at the server an

unencrypted attachment identifying intermediate stations between the server and the

designated address, the intermediate stations being operative to provide for the

transmission of the unencrypted message between the server and the designated address,

249.   (New) A method as set forth in claim 248, including the step at the series of:

providing for the transmission from the server to the sender of the unencrypted message and the unencrypted attachment without encrypting the unencrypted message,

5   and

providing for the destruction or discarding at the server of the unencrypted message and the unencrypted attachment without encrypting the unencrypted message and the unencrypted attachment,

providing for the transmission from the sender to the server of the unencrypted

10   message and the unencrypted attachment, and

providing for the authentication at the server of the unencrypted message and the unencrypted attachment on the basis of the unencrypted message, and the unencrypted attachment, received by the server from the sender.

15   250.   (New) A method as set forth in claim 248, including the steps at the server of:

without encrypting the unencrypted message and the unencrypted attachment providing for the transmission from the server to the sender of the unencrypted message and the unencrypted attachment and a selection of (a) a digital signature of the

20   unencrypted message and a digital signature of the unencrypted attachment and (b) a digital signature of a combination of the unencrypted message and the unencrypted attachment, and

without encrypting the unencrypted message but at the same time as the transmission of the unencrypted message and the unencrypted attachment and the

25   selected one of (a) the digital signature of the unencrypted message and the digital

signature of the unencrypted attachment and (b) the digital signature of the combination of the unencrypted message and the unencrypted attachment, discarding the unencrypted message and the attachment and the selected one of (a) the digital signature of the unencrypted attachment and (b) the digital signature of the combination of the

5   unencrypted message and the unencrypted attachment.

251.   (New) In a method as set forth in claim 249, the steps at the server of:

without encrypting the unencrypted message, receiving from the sender the unencrypted message and the unencrypted attachment and the selected one of (a) the

10   digital signature of the unencrypted message and the digital signature of the unencrypted attachment and (b) the digital signature of the combination of the unencrypted message and the unencrypted attachment, and

authenticating the unencrypted message and the unencrypted attachment on the basis of the unencrypted message and the unencrypted attachment and the selected one of

15   (a) the digital signature of the unencrypted message and the digital signature of the unencrypted attachment and (b) the digital signature of the combination of the unencrypted message and the unencrypted attachment.

252.   (New) A method as set forth in claim 251 wherein

20   digital fingerprints are provided at the server of the unencrypted message and of the unencrypted attachment and of the selected one of (a) the digital signature of the unencrypted message and the digital signature of the unencrypted attachment and (b) the digital signature of the combination of the unencrypted message and the unencrypted attachment.

25

253. (New) A method as set forth in claim 251 wherein

digital fingerprints are provided at the server of (a) the unencrypted message and (b) the unencrypted attachment, (c) the digital signature of the unencrypted message and, (d) the digital signature of the unencrypted attachment when digital signatures are

5   provided at the server of the unencrypted message and the attachment and wherein

to authenticate the unencrypted message, the digital fingerprints of the

unencrypted message and the digital signature of the unencrypted message are compared

and

the digital fingerprints of the unencrypted attachment and the digital signature of

10   the unencrypted attachment are compared to authenticate the unencrypted attachment.

254. A method as set forth in claim 251 wherein,

digital fingerprints are provided at the server of the combination of the

unencrypted message and the unencrypted attachment and the digital signature of the

15   combination of the unencrypted message and the unencrypted attachment and wherein

the digital fingerprint of the combination of the unencrypted message and the

unencrypted attachment is compared with the digital fingerprint of the digital signature of

the combination of the unencrypted message and the unencrypted attachment to

authenticate the unencrypted message.

20

255. (New) In a method as set forth in claim 115, the steps at the server of:

without encrypting the unencrypted message, receiving an unencrypted attachment

from the destination address,

providing at the server a digital signature of a combination of the unencrypted message and the unencrypted attachment, and

without encrypting the unencrypted message and the unencrypted attachment, transmitting to the sender the unencrypted message, the unencrypted attachment and the

5   digital signature of the combination of the unencrypted message and the unencrypted attachment.

256.   (New) In a method as set forth in claim 255, the steps at the server of:

without encrypting the unencrypted message, generating a digital fingerprint of a

10   combination of the unencrypted message and the unencrypted attachment and a digital fingerprint of the digital signature of the combination of the unencrypted message and the unencrypted attachment, and

comparing the digital fingerprints to authenticate the message and the attachment.

15   257.   (New) In a method as set forth in claim 256 wherein

the unencrypted attachment includes intermediate stations providing a

transmission of the unencrypted message between the server and the destination address.

258.   (New) In a method as set forth in claim 255, the steps at the server of:

20   without encrypting the unencrypted message, receiving from the sender copies of the unencrypted message, the unencrypted attachment and the digital signature of the combination of the unencrypted message and the unencrypted attachment, and

authenticating the unencrypted message and the unencrypted attachment on the basis of the unencrypted message, the unencrypted attachment and the digital signature of the combination of the unencrypted message and the attachment, and

the attachment identifying the intermediate stations providing for the transmission
5   of the unencrypted message between the server and the destination address.

259.   (New) In a method as set forth in claim 257, the step at the server of:

receiving at the server a delivery status notification relating to the status of the unencrypted message at the destination address and the status of the delivery of the
10   unencrypted message from the destination address to a recipient at the destination address.

260.   (New) A method as set forth in claim 263, including the step of:

without encrypting the unencrypted message, receiving at the server from the
15   designated address a delivery status notification indicating the status of the delivery of the unencrypted message from the server to the designated address and the time of the transmission of the status notification from the designated address to the server.

261.   (New) In a method as set forth in claim 173, the steps of:

20   without encrypting the unencrypted message, transmitting from the first server to the sender the unencrypted message, the unencrypted attachment and the digital signature of the combination of the unencrypted message and the unencrypted attachment, and

without encrypting the unencrypted message, transmitting from the first server to the sender the unencrypted message, the unencrypted attachment and the digital signature of the combination of the unencrypted message and the unencrypted attachment.

5   262.   (New) A method as set forth in claim 243 wherein:

the destination address is one of a plurality of destination addresses receiving the unencrypted message from the server and wherein

the server identifies each individual one of the destination addresses in transmitting the unencrypted message to the destination address.

10

263.   (New) A method as set forth in claim 250 wherein:

the destination address is one of a plurality of destination addresses receiving the unencrypted message from the server and wherein

the server identifies each individual one of the destination addresses in
15   transmitting the unencrypted message to the destination address.

264.   (New) A method as set forth in claim 247 wherein:

the attachment includes the identity and address of the sender, the identity and address of the server and the designated address.

20

265.   (New) A method as set forth in claim 248 wherein:

the attachment includes the identity and address of the sender, the identify and address of the server and the designated address.

266.   A method as set forth in claim 250 wherein

the unencrypted message and the unencrypted attachment are transmitted from the server to the sender via a selected one of an SMTP protocol and an ESMTP protocol and wherein

5   the server receives from the sender the unencrypted message and the unencrypted attachment via the selection of one of the SMTP and ESMTP protocols.

267.   (New) A method as set forth in claim 255 wherein:

via a selected one of the SMTP and ESMTP protocols, the unencrypted message

10   and the unencrypted attachment are received at the server from the destination address, are transmitted by the server to the sender and are received by the server from the sender.

268.   (New) A method as set forth in claim 249 wherein:

the time for the transmission of the unencrypted message from the server to the

15   designated address and the time for the reception of the unencrypted message at the designated address are provided at the server and wherein

without encrypting the unencrypted message, the time of the transmission of the unencrypted message from the server to the destination address and the time for the reception of the unencrypted message at the destination address are included in the

20   transmission from the server to the sender.

269.   (New) A method as set forth in claim 261 wherein

without encrypting the unencrypted message, the time for the transmission of the unencrypted message from the server to the designated address and the time for the

reception of the unencrypted message at the designated address are transmitted from the server to the sender.

270.   A method of providing proof of the delivery of a message comprising the

5   steps of:

receiving from a sender across a computer network an unencrypted electronic message, the unencrypted electronic message having a destination address associated therewith;

transmitting, via a selected one of SMTP and ESMTP protocols, the unencrypted

10   electronic message from a transmitting server to a receiving server associated with the destination address;

recording, at least a portion of data exchanged between the transmitting server and the receiving server in the course of transmission via the selected one of the SMTP and ESMTP protocols, said record defining a dialog between the transmitting and receiving

15   servers via the selected one of the SMTP and ESMTP protocols; and

transmitting the record to a storage means displaced from the transmitting and receiving server, to provide a proof at a later date of the delivery of the unencrypted electronic message to the receiving server by the transmitting server.

20

271.   The method of claim 270 further comprising the steps of:

transmitting the unencrypted electronic message via the selected one of the SMTP

and ESMTP protocols to a plurality of additional receiving servers associated with

additional destination addresses;

5   recording dialogs corresponding to the transmission of the message to the

additional destination servers via the selected one of the SMTP and ESMTP protocols;

and

transmitting the records to storage means displaced from the transmitting server

and the receiving server to provide for the production of the dialogs at a later date as

10   proof of the delivery of the unencrypted electronic message to the receiving servers by

the transmitting server.

272.   The method of claim 270 wherein

the method of storage comprises transmitting a copy of the recorded dialog to the

15   sender of the unencrypted electronic message, the copy defining a Delivery Receipt of the

unencrypted electronic message.

273.   The method of claim 272 including the step of:

digitally signing the delivery receipt with an encryption key which is not known to

20   the sender of the unencrypted electronic message.

274. The method of claim 270 wherein

the unencrypted electronic message is transmitted through the internet between the

transmitting server and the receiving server and wherein the addresses of the transmitting

server and the receiving server are e-mail addresses.

5

275.   A method of providing proof of the delivery of a message comprising the

steps of:

receiving from a sender across a computer network an unencrypted electronic

message, the electronic message having a destination address associated therewith;

10   creating a fictitious address composed of a unique identifier of the unencrypted

electronic message, a unique identifier of the destination address of the unencrypted

electronic message and a domain name of a server designated as the Receipt Server;

transmitting the unencrypted electronic message, via a selected one of an SMTP

protocol and an ESMTP protocol, by a transmitting server to a receiving server associated

15   with the destination address;

in the course of said transmission, directing the receiving server to send to the

fictitious address a Delivery Status Notification (DSN) for the unencrypted electronic

message in compliance with the selected one of the SMTP protocol and the ESMTP

protocol;

20   receiving, at the Receipt Server a Delivery Status Notification containing a notice

of the delivery status of the unencrypted electronic message addressed to the fictitious

address; and

transmitting at a later date at least one of the Delivery Status Notification and a

digest thereof to a storage means displaced from the transmitting server and the receiving

server to provide proof of the delivery of the unencrypted electronic message to the

receiving server by the transmitting server.

5

276.   The method of claim 275 further comprising the steps of:

transmitting the unencrypted electronic message to a plurality of additional

receiving servers associated with additional destination addresses;

receiving at the Receipt Server Delivery Status Notifications containing a notice of

10   the delivery status of the unencrypted electronic message to each of the additional

destination addresses, and

transmitting at least one of the Delivery Status Notification and a digest thereof to

a storage means displaced from the transmitting server and the receiving servers to

provide proof at a later date of the delivery of the unencrypted electronic message to the

15   receiving servers by the transmitting server.

277.   The method of claim 276 wherein

the method of storage comprises sending a copy of at least one of the DSN

Message and

20   a digest thereof to the original sender of the message, said copy defining a Delivery

Receipt for the unencrypted electronic message.

278. The method of claim 273 including the step of digitally signing the
   delivery receipt

with an encryption key which is not known to the sender of the unencrypted electronic

message.

5

279. The method of claim 276 wherein

the unencrypted electronic message is transmitted through the internet to the

receiving server and the additional receiving servers and wherein

the receiving server and the additional receiving servers are constructed to receive

10   e-mail.

280. A method of providing proof regarding the delivery of an unencrypted
   electronic

message to a recipient comprising the steps of:

15   receiving from a sender across a computer network an unencrypted electronic

message having a destination address associated therewith;

creating a fictitious address composed of a unique identifier of the unencrypted

electronic message, a unique identifier of the destination address of the unencrypted

electronic message and a domain name of a server, the fictitious address being designated

20   as the Receipt Server;

adding to the unencrypted electronic message a message header which directs a

mail client of the recipient to send a notification message to the fictitious address upon

the opening of the unencrypted electronic message; and

receiving, at the Receipt Server, a notification message of the opening of the

unencrypted electronic message addressed to the fictitious address; and

transmitting at least one of the notification message and a digest thereof to a

storage means to provide proof at a later date of the delivery of the unencrypted

5   electronic message to the recipient, the storage means being displaced from the Receipt

Server and the destination address.

281.   The method of claim 280 further comprising the steps of:
transmitting copies of the unencrypted electronic message to a plurality of

10   destination servers having to delivery addresses associated with the unencrypted

electronic message, each copy of the unencrypted electronic message bearing a fictitious

address distinctive of its respective destination address; and

receiving at the Receipt Server a notification of the opening of the message at each

of the delivery addresses, each such notification being addressed to the fictitious address

15   at the Receipt Server.

282.   A method as set forth in 280, including the step of:
transmitting at least one of the notification messages and a digest thereof to a

storage means displaced from the Receipt Server and the destination server to provide

20   proof at a later date of the delivery of the unencrypted electronic message to the recipient.

283.   The method of claim 281 wherein

the method of storage comprises sending a copy of at least one of the notification

message and a digest thereof to the sender of the unencrypted electronic message, the

copy defining a Delivery receipt for the unencrypted electronic message.

5

284.   The method of claim 283 including the step of:

digitally signing the delivery receipt with an encryption key which is not known to

the sender of the message.

10   285.   The method of claim 283 wherein

the unencrypted electronic message is transmitted through the internet to the

recipient's mail client, the recipient's mail client being responsive to the unencrypted

electronic message transmitted through the internet and being an e-mail server.